WHAT IS CLAIMED IS:

1. A method of preparing polymeric particles with photographic couplers, such polymeric particles being useful in a microarray, the method comprising the steps of:

(a) preparing an organic composition by combining a photographic coupler and a high boiling organic solvent;

(b) preparing a separate aqueous composition comprising polymeric particles with functionally active groups on their surfaces;

(c) combining the organic composition of step (a) with the aqueous composition of step (b), thereby effecting a loading of said photographic coupler and high boiling organic solvent into said polymeric particles; and

(d) attaching biological probes to the functionally active groups on the surfaces of the loaded polymeric particles of step c).

2. The method of claim 1 wherein the organic composition of step a) further contains a volatile or water-miscible auxiliary solvent.

3. The method of claim 1 wherein step b) further includes adding a surfactant to the aqueous composition.

4. The method of claim 1 wherein the polymeric particles are formed by emulsion polymerization, dispersion polymerization, or by limited coalescence.

5. The method of claim 1 wherein the polymeric particles are formed from styrenic polymers, acrylic polymers, or from a polyester-addition polymer hybrid.

6. The method of claim 1 wherein the polymeric particles have a mean diameter of 1 to 50 microns.

7. The method of claim 1 wherein the polymeric particles have a mean diameter of 3 to 30 microns.

8. The method of claim 1 wherein the polymeric particles have a mean diameter of 5 to 20 microns.

9. The method of claim 1 wherein the functionally active groups on the surfaces of the polymeric particles can interact with biological probes.

10. The method of claim 1 wherein the functionally active group on the surfaces of the polymeric particles are carboxyl, amino, hydroxyl, hydrazide, amide, chloromethyl, epoxy, or aldehyde.

11. The method of claim 1 wherein the biological probes are covalently or noncovalently attached to the surfaces of the loaded polymeric particles.

12. The method of claim 1 wherein the coupler in the loaded polymeric particle can be developed to form a detectable color.

13. The method of claim 12 wherein the color formed upon development identifies the polymeric particle.

14. The method of claim 12 wherein the photographic coupler is developed by interacting with oxidizing color developing agents to form cyan, magenta or yellow dyes.

15. The method of claim 14 wherein the photographic coupler is a phenol or a naphthol that forms cyan dyes.

16. The method of claim 14 wherein the photographic coupler is a pyrazolone, pyrazolotriazole, or pyrazolobenzimidazole that forms magenta dyes.

17. The method of claim 14 wherein the dye-forming coupler is an open chain ketomethylene compound that forms yellow dyes.

18. The method of claim 1 wherein the high boiling organic solvent is selected from the group of compounds consisting of alkyl phthalates, aryl phthalates, alkyl amides, phosphates, phenols, alcohols, sulfoxides, esters, hydrocarbons, alkyl halides, and epoxides.

19. The method of claim 1 wherein the high boiling organic solvent is selected from the group of compounds consisting of diethyl phthalate, dibutyl phthalate, dipentyl phthalate, diisoamyl phthalate, dibenzyl phthalate, dimethoxyethyl phthalate, dibutoxyethyl phthalate, tributyl trimellitate, acetyltributyl citrate, tributyl citrate, tripentyl citrate, dimethyl sebacate, dibutyl sebacate, dibutyl adipate, dibutyl azelate, 1,4-cyclohexylenedimethylene bis(2-ethylhexanaoate), bis-ethylhexyl sulfoxide, triphenylphosphate, tricresylphosphate, trihexylphosphate, n-Hexylphenylcarbinol, 2-(p-tert, butylphenoxy)-ethanol, Acetyl n-butyl aniline, N-n-amyl succinimide, N,N-di-propyl dodecanamide, N-dodecyl pyrolidinone, di-tert amyl phenol, phenoxy toluene, ethylhexyl hydroxy benzoate, phenylethyl benzoate, ethylhexyltoluene sulfonamide, undecyl alcohol, oleyl alcohol, butyl methoxy benzoate, butyl phthalylbutyl glycollate, and N,N'-di-n-butyl urea.

20. The method of claim 1 wherein the weight ratio of the combined photographic coupler and high boiling solvent of step a) to the polymeric particles of step b) is between 1:1 and 20:1.

21. The method of claim 1 wherein the weight ratio of the combined photographic coupler and high boiling solvent of step a) to the polymeric particles of step b) is between 1:1 and 3:1.

22. The method of claim 2 wherein the volatile or water-miscible auxiliary solvent is removed in an additional step after step c) and before step d).

23. The method of claim 22 wherein the auxiliary solvent is removed by evaporation or dialysis.

24. A polymeric particle for use in a microarray, the polymeric particle comprising:

at least one functionally active group that can interact with a biological probe;

at least one photographic coupler; and

a high boiling solvent.

25. The polymeric particle of claim 24 with a biological probe covalently or noncovalently attached.

26. The polymeric particle of claim 24, formed from styrenic polymers, acrylic polymers, or from a polyester-addition polymer hybrid.

27. The polymeric particle of claim 24 wherein the polymeric particles have a mean diameter of 1 to 50 microns.

28. The polymeric particle of claim 24 wherein the polymeric particles have a mean diameter of 3 to 30 microns.

29. The polymeric particle of claim 24 wherein the polymeric particles have a mean diameter of 5 to 20 microns.

30. The polymeric particle of claim 24 wherein the functionally active groups on the surfaces of the polymeric particles can interact with biological probes.

31. The polymeric particle of claim 24 wherein the functionally active group on the surfaces of the polymeric particles are carboxyl, amino, hydroxyl, hydrazide, amide, chloromethyl, epoxy, or aldehyde.

32. The polymeric particle of claim 24 wherein the biological probes are covalently or noncovalently attached to the surfaces of the loaded polymeric particles.

33. The polymeric particle of claim 24 wherein the coupler in the loaded polymeric particle can be developed to form a detectable color.

34. The polymeric particle of claim 33 wherein the photographic coupler is developed by interacting with oxidizing color developing agents to form cyan, magenta or yellow dyes.

35. The polymeric particle of claim 24 wherein the photographic coupler is a phenol or a naphthol that forms cyan dyes.

36. The polymeric particle of claim 24 wherein the photographic coupler is a pyrazolone, pyrazolotriazole, or pyrazolobenzimidazole that forms magenta dyes.

37. The polymeric particle of claim 35 wherein the dye-forming coupler is an open chain ketomethylene compound that forms yellow dyes.

38. The polymeric particle of claim 24 wherein the high boiling organic solvent is selected from the group of compounds consisting of alkyl phthalates, aryl phthalates, alkyl amides, phosphates, phenols, alcohols, sulfoxides, esters, hydrocarbons, alkyl halides, and epoxides.

39. The polymeric particle of claim 24 wherein the high boiling organic solvent is selected from the group of compounds consisting of diethyl

phthalate, dibutyl phthalate, dipentyl phthalate, diisoamyl phthalate, dibenzyl phthalate, dimethoxyethyl phthalate, dibutoxyethyl phthalate, tributyl trimellitate, acetyltributyl citrate, tributyl citrate, tripentyl citrate, dimethyl sebacate, dibutyl sebacate, dibutyl adipate, dibutyl azelate, 1,4-cyclohexylenedimethylene bis(2-ethylhexanaoate), bis-ethylhexyl sulfoxide, triphenylphosphate, tricresylphosphate, trihexylphosphate, n-Hexylphenylcarbinol, 2-(p-tert, butylphenoxy)-ethanol, Acetyl n-butyl aniline, N-n-amyl succinimide, N,N-di-propyl dodecanamide, N-dodecyl pyrolidinone, di-tert amyl phenol, phenoxy toluene, ethylhexyl hydroxy benzoate, phenylethyl benzoate, ethylhexyltoluene sulfonamide, undecyl alcohol, oleyl alcohol, butyl methoxy benzoate, butyl phthalylbutyl glycollate, and N,N'-di-n-butyl urea.

40. An element for use in detecting biological analytes, the element comprising:

a support;

a receiving layer; on which are disposed

the polymeric particles of claim 24.